

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 010-0019	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US05/08282	International filing date ( <i>day/month/year</i> ) 11 March 2005 (11.03.2005)	Priority date ( <i>day/month/year</i> ) 13 March 2004 (13.03.2004)
International Patent Classification (IPC) or national classification and IPC IPC: G06F 9/46( 2006.01);G06F 13/14( 2006.01) USPC: 718/100,102,104;709/226		
Applicant CLUSTER RESOURCES, INC.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of ____ sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 11 October 2005 (11.10.2005)	Date of completion of this report 16 January 2008 (16.01.2008)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Meng-Ai An Telephone No. (571) 272-2100	

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US05/08282

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☒ the description:  
 pages 1-9 as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
 pages 10-13 as originally filed  
 pages NONE, as amended (together with any statement) under Article 19  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
 pages 1-4 as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
 pages NONE as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/~~fig~~ NONE

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US05/08282

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>1-18</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-18</u>	NO
Industrial Applicability (IA)	Claims <u>1-18</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-18 lack an inventive step under PCT Article 33(3) as being obvious over Biliris et al. (hereafter Biliris) (U.S. Patent No. 6041354) in view of Egawa et al (hereafter Egawa) (U.S Patent No. 5745694).

As per claim 1, Biliris teaches the invention as claim including a method of performing intelligent data pre-staging for a job submitted to a compute environment, the method comprising:  
determining availability of compute resources including availability timeframes to process the submitted job (col. 5, lines 53-56); and  
determining data requirements for processing the job (col. 5, lines 56-57).

Biliris did not specifically teach determining a co-allocation in time reservation.

However, Egawa teaches determining a co-allocation in time reservation (abstract; col. 3, lines 33-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Biliris and Egawa's system because both of the systems dealing with network resource managing and Egawa also teaching of determining a co-allocation in time reservation would improved the integrity of Biliris's system by providing a resource reservation system which is easily expandable to adapt user's demand (col. 1, lines 46-48).

As per claim 2, Biliris teaches that wherein the data requirements related to a quantity of data and a speed of migration of the data to the compute resources (col. 8, lines 28-62).

As per claim 3, Biliris teaches that wherein the data requirement for processing the job are at least one of: network information, network speed, faults, statistical fluctuation, delivered bandwidth by the network, size, and any issues, you basically have to ramp up the initialized step, a data transfer step, and a prologue step, termination step which completes the record and verifies the successful transfer of data (col. 8, lines 28-62).

As per claim 4, Biliris teaches that wherein the compute resources must be available prior to the completion of the data staging step (col. 6, lines 1-18).

As per claims 5-18, they are rejected for the same reasons as claims 1-4 above.

Claims 1-18 meet the criteria set out in PCT Article 33(4), and thus the application is industrial applicability because the subject matter claimed can be made or used in industry.